SIGNAL COEXPRESSION: LAB NOTEBOOK WEEKLY SUMMARY

Week 1 (1/6/2015-5/6/2015)

1. Summer training, mainly for recalling the basic techniques

2. Discussion for the plan of the main project

Week 2 (8/6/2015-12/6/2015)

1. Transformed of the parts from kit plate that would be used

2. Constructed P_{bad}-P_{lac} (pSB3K3-BBa_I0500-I13054) through digestion and ligation

3. Attempted to transform the parts of P_{lux} and promoter BBa_J23101 and BBa_I13522, but failed

Week 3 (15/6/2015-19/6/2015)

1. Checked P_{bad} by restriction check

2. Constructed intermediate part of P_{lac} (pSB3K3-BBa_J04450-BBa_P0412) through digestion and ligation

3. Checked intermediate part of P_{lac} by restriction check

4. Constructed P_{bad}-P_{lac} and P_{bad}-P_{lac}
5. Failed to transform parts of P_{lux} again

Week 4 (29/6/2015-3/7/2015)

1. Restriction checked P_{bad}-P_{lac} and P_{lac}-P_{bad}

2. Constructed P_{tet} through digestion and ligation

3. Prepared stock solutions for L-arabinose (1M) and IPTG (1M)

4. Prepared minimal medium

5. Constructed the part pSB3K3-BBa_J37032 for P_{lux}

6. Ordering primers for P_{lux}

Week 5 (6/7/2015-11/7/2015)

1. Checked the part pSB3K3-BBa_J37032 (P_{lux} intermediate) by colony PCR and restriction check
2. Plate reading for P_{lac} and P_{bad}
3. Failed to transform the template plasmid (BBa_I13018) for P_{lux}

Week 6 (13/7/2015-18/7/2015)

1. Made glycerol stock for final constructs P_{bad}, P_{lac}, P_{bad}-P_{lac} and P_{lac}-P_{bad}
2. Plate reading for P_{bad}
3. Failed to transform the templates(BBa_A340620, BBa_S03119 and BBa_I13018) of P_{lux}
4. Streaked plates for those would be characterized and those which were old
5. Continued to build P_{tet}

Week 7 (20/7/2015-24/7/2015)

1. Checked P_{tet} => proved to be correct by colony PCR and restriction check

2. Characterised P_{lac} and P_{bad} (wrong P_{lac} was used => no result for that)
3. Transformed the P_{lac} plamid to obtain cells will correct construct for characterization
4. Constructed P_{tet}-P_{lac} via digestion and ligation
5. Made stock solution of aTc(1mM)
6. Functionality test of P_{tet} by inoculating it with M9 minimal medium+aTc+KAN => successful

Week 8 (27/7/2015-31/7/2015)

1. P_{tet}-P_{lac} res. checked
2. P_{lac}-P_{bad} functionality test done
3. P_{bad} better characterized
4. P_{lac} characterization attempted, but error bar too large
5. Gibson assembly of P_{lux} failed

Week 9 (3/8/2015-8/8/2015)

1. P_{lac} characterized again, error bar still quite large

2. P_{bad} characterized by overnight induction

3. Restriction checked P_{lux}

Week 10 (10/8/2015-14/8/2015)

1. Characterization of P_{lac}

2. Attempted characterization of P_{tet}, results were not positive

3. Attempted cloning of P_{lux} by Gibson's Assembly- Unsucessful

Week 11 (17/8/2015-21/8/2015)

1. Characterize P_{bad}-P_{lac} by overnight induction with varied concentration of Arabinose and constant IPTG (once with the maximum amount and another with minimum i.e. 0mM IPTG) as inducer.

2. Cloning of LuxR

4. Attempted characterization

Week 12 (24/8/2015-28/8/2015)

1. Characterization of P_{bad}-P_{lac} by overnight varied induction, and using varied concentration of Arabinose and IPTG.

2. Attempted characterization of P_{lac} - unsuccessful

3. Attempted cloning of P_{lux} GFP P_{lac}- unsuccessful

Week 13 (31/8/2015-4/8/2015)

1. Characterization of P_{bad}-P_{lac} by overnight varied induction, and using varied concentration of Arabinose and IPTG.

2. Characterization of P_{lac}